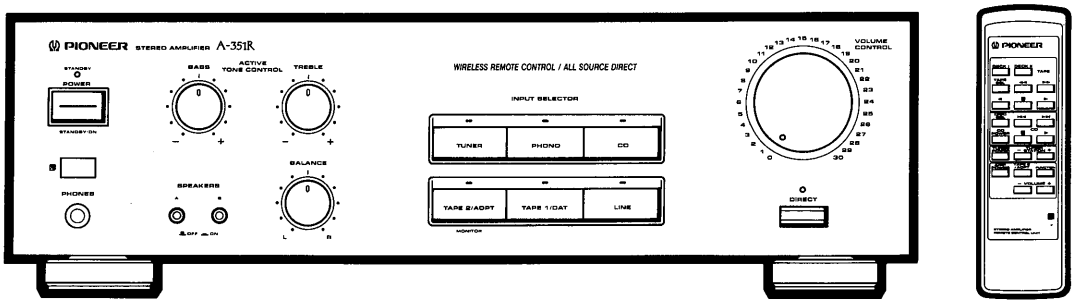
Operating Instructions

STEREO AMPLIFIER

A-351R



Thank you for buying this PIONEER product.
Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.
In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

"This product complies with the Radio Interference requirements of the EC (European Community) Directive 87/308/EEC."

IMPORTANT 1

The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT 2

If the apparatus is fitted with AC mains power outlet(s), see REAR PANEL FACILITIES for convenient connection of additional Hi-Fi component(s). Make all connections to the AC outlet(s) and the signal terminals first. Connect the plug to the wall socket last (make sure that the power switch is off.)

FOR USE IN THE UNITED KINGDOM

The wires in this mains lead are coloured in accordance with the following code:
Blue: Neutral
Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured marking identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.
Do not connect either wire to the earth terminal of a three pin plug.
Equipment sold in the U.K. is not supplied with a power plug.

PIONEER®
The Art of Entertainment

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FEATURES

- **Remote control integrated amplifier**
  Convenience is combined with no-compromise performance. The remote provides access to all Pioneer audio equipment with the SR mark.
- **Power output of 45 + 45 watts at 4 ohms, DIN (30 watts per channel, at 8 ohms from 20 Hz to 20,000 Hz with 0.07 % total harmonic distortion.**
- **Low-impedance driving capability: To capably drive speaker with low impedance for better digital sound.**
- **"DIRECT" button: For bypassing the tone and balance-control circuits — highest purity results.**
- **Active tone control: Lows and highs are automatically boosted when volume is lowered, to compensate for insufficient bass and treble.**
- **6 inputs: PHONO, TUNER, CD, LINE, TAPE 1/DAT, TAPE 2/ADAPTOR.**
- **Large insulators**
- **Connections for two pairs of speaker systems.**

INSTALLATION

LOCATION

Install the amplifier in a well-ventilated location where it will not be exposed to high temperature or humidity.

Do not install the amplifier in a location which is exposed to direct rays of the sun, or near to hot appliances or radiators. Excessive heat can adversely affect the cabinet and internal components. Installation of the amplifier in a damp or dusty environment may result in malfunction or accident. (Also avoid installation near cookers ètc., where the amplifier may be exposed to smoke from oil, steam or heat.)

POWER-CORD CAUTION

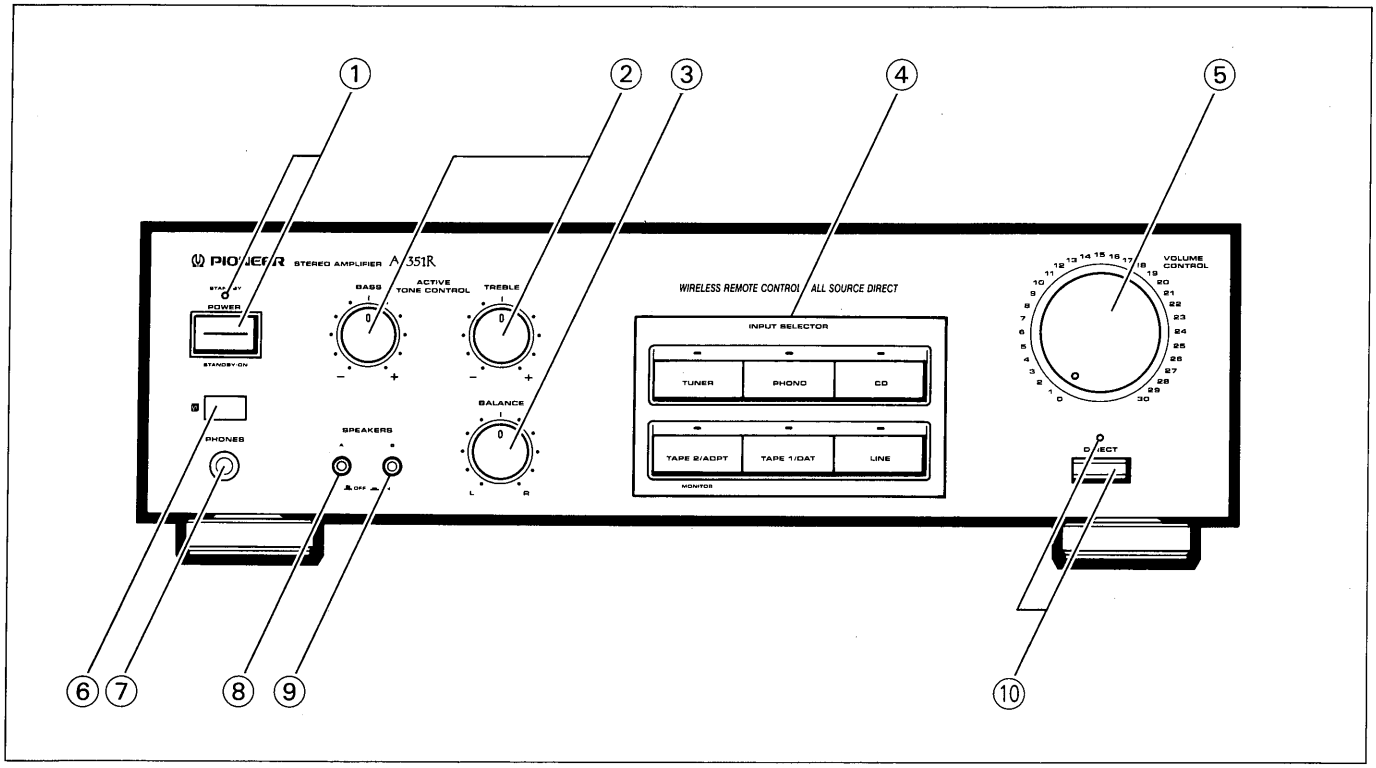
Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed such that they are not likely to be stepped on. A damaged power cord can cause fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

MAINTENANCE OF EXTERNAL SURFACES

- Use a polishing cloth or dry cloth to wipe off dust and dirt.
- When the surfaces are very dirty, wipe with a soft cloth dipped in some neutral cleanser diluted five or six times with water, and wrung out well, and then wipe again with a dry cloth. Do not use furniture wax or cleaners.
- Never use thinners, benzine, insecticide sprays and other chemicals on or near this unit, since these will corrode the surfaces.

PANEL FACILITIES

FRONT PANEL



① POWER STANDBY/ON switch/indicator

To use the amplifier, press the POWER STANDBY/ON switch to ON, so that the STANDBY indicator goes off. When the STANDBY indicator lights, the unit is in STANDBY.
When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.

② ACTIVE TONE CONTROL

The effect of the main unit's tone control becomes more noticeable when the volume is decreased, so it can be adjusted to achieve the same effect as the Loudness function.

TREBLE tone control

Use to adjust the high-frequency tone at low volume level. The center position is the flat (normal) position. When turned to the right, high-frequency tones are emphasized; when turned to the left, high-frequency tones are de-emphasized.

NOTE:

- *This control does not operate when DIRECT button is in the on position.*
- *At volume levels lower than "12", the set tone control effect is obtained.*
  At volume levels higher than "12", the effect becomes increasingly weaker.

BASS tone control

Use to adjust the low-frequency tone at low volume level. The center position is the flat (normal) position. When turned to the right, low-frequency tones are emphasized; when turned to the left, low-frequency tones are de-emphasized.

NOTE:

- *This control does not operate when DIRECT button is in the on position.*
- *At volume levels lower than "12", the set tone control effect is obtained.*
  At volume levels higher than "12", the effect becomes increasingly weaker.

③ BALANCE control

Should normally be left in the center position. Adjust balance if the sound is louder from one of the speakers. If the right side is louder, turn toward the L position and if the left side is louder, turn toward the R position.

NOTE:

This function does not operate when DIRECT button is in the on position.

④ INPUT SELECTOR buttons/indicators

Use to select the playback source.

TUNER:
For AM or FM broadcast reception with a tuner.

PHONO:
For record playback with a turntable.

CD:
For compact disc playback with a CD player.

LINE:
For playback with a component connected to LINE terminal.

TAPE 1/DAT:
For playback with a cassette deck or digital audio cassette deck connected to TAPE 1/DAT terminals.

TAPE 2/ADPT:
For playback with a cassette deck or adaptor connected to TAPE 2/ADPT terminals.

NOTE:
When the DIRECT button is set to ON, the input to be reduced is always selected with the INPUT SELECTOR except TAPE 2/ADPT, regardless of whether the TAPE 2/ADPT indicator lights or not. Furthermore, when the TAPE 2/ADPT indicator is ON, signals input through TAPE 2/ADPT are output at TAPE 1/DAT REC.

⑤ VOLUME CONTROL

Use to adjust the volume level.

NOTE:
This unit is equipped with a circuit that attenuates TONE effect as volume is turned up.

⑥ Remote control sensor window

⑦ PHONES jack

When using headphones, insert the plug into this jack.

⑧ SPEAKERS A selector button

Use this button to listen to the speaker systems connected to SPEAKERS A terminals.

ON (▂): Depressed position: Sound is heard from the speaker systems.

OFF (▔): Released position: No sound is heard from the speaker systems. Set to this position when listening with headphones.

⑨ SPEAKERS B selector button

Use this button to listen to the speaker systems connected to SPEAKERS B terminals.

ON (▂): Depressed position: Sound is heard from the speaker systems.

OFF (▔): Released position: No sound is heard from the speaker systems. Set to this position when listening with headphones.

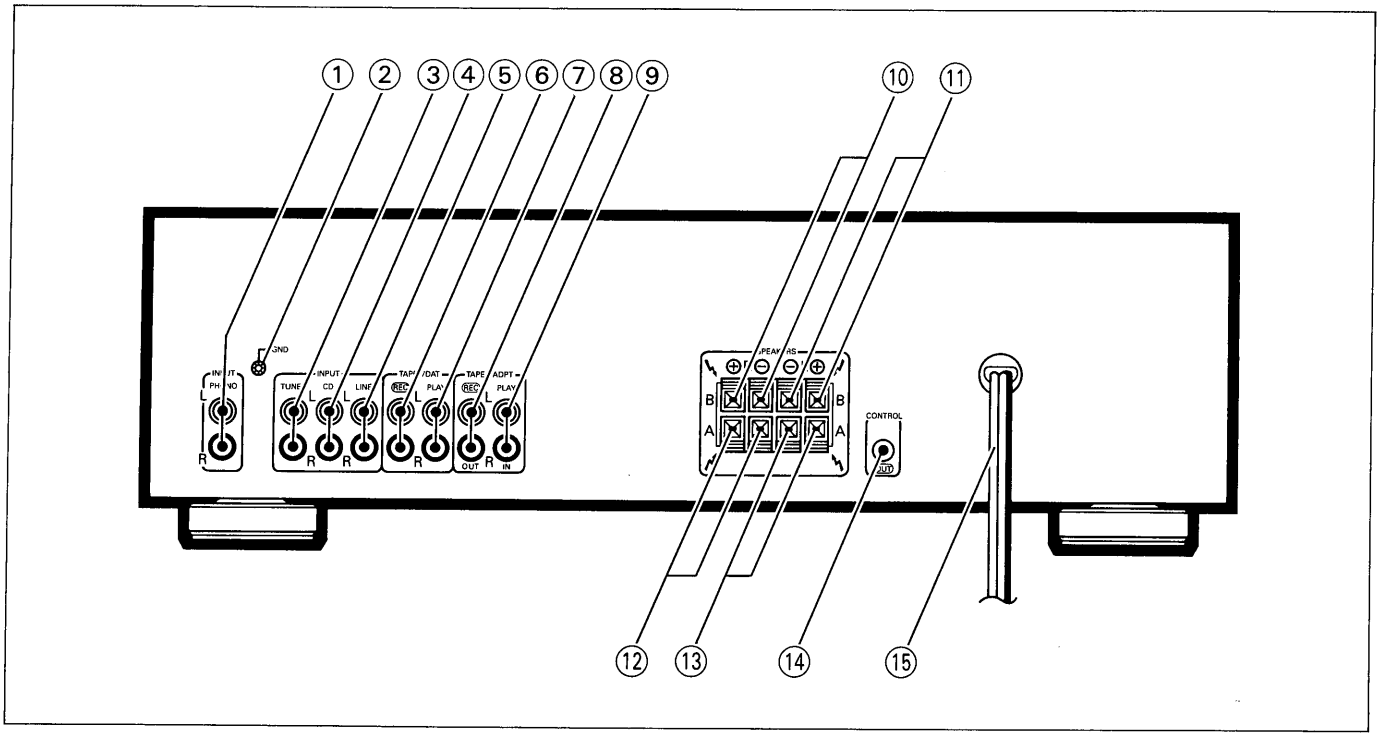
⑩ DIRECT button/indicator

Use this button/indicator when you do not wish to pass the output from input terminal equipment through the various frequency adjusting circuits (BASS, TREBLE, BALANCE).

on: The indicator lights: The signals input through the input terminals are reproduced without passing through the various frequency adjusting circuits. This results in flat, pure sound which is a more faithful reproduction of the input source.

off: The indicator goes out: The signal passes through the various frequency adjusting circuits.

REAR PANEL



① **PHONO terminals**

② **Turntable ground terminal (GND)**

③ **TUNER terminals**

④ **CD terminals**

⑤ **LINE terminals**

⑥ **TAPE 1/DAT REC terminals**

⑦ **TAPE 1/DAT PLAY terminals**

⑧ **TAPE 2/ADPT REC (OUT) terminals**

⑨ **TAPE 2/ADPT PLAY (IN) terminals**

⑩ **SPEAKERS B terminals (right channel)**

⑪ **SPEAKERS B terminals (left channel)**

⑫ **SPEAKERS A terminals (right channel)**

⑬ **SPEAKERS A terminals (left channel)**

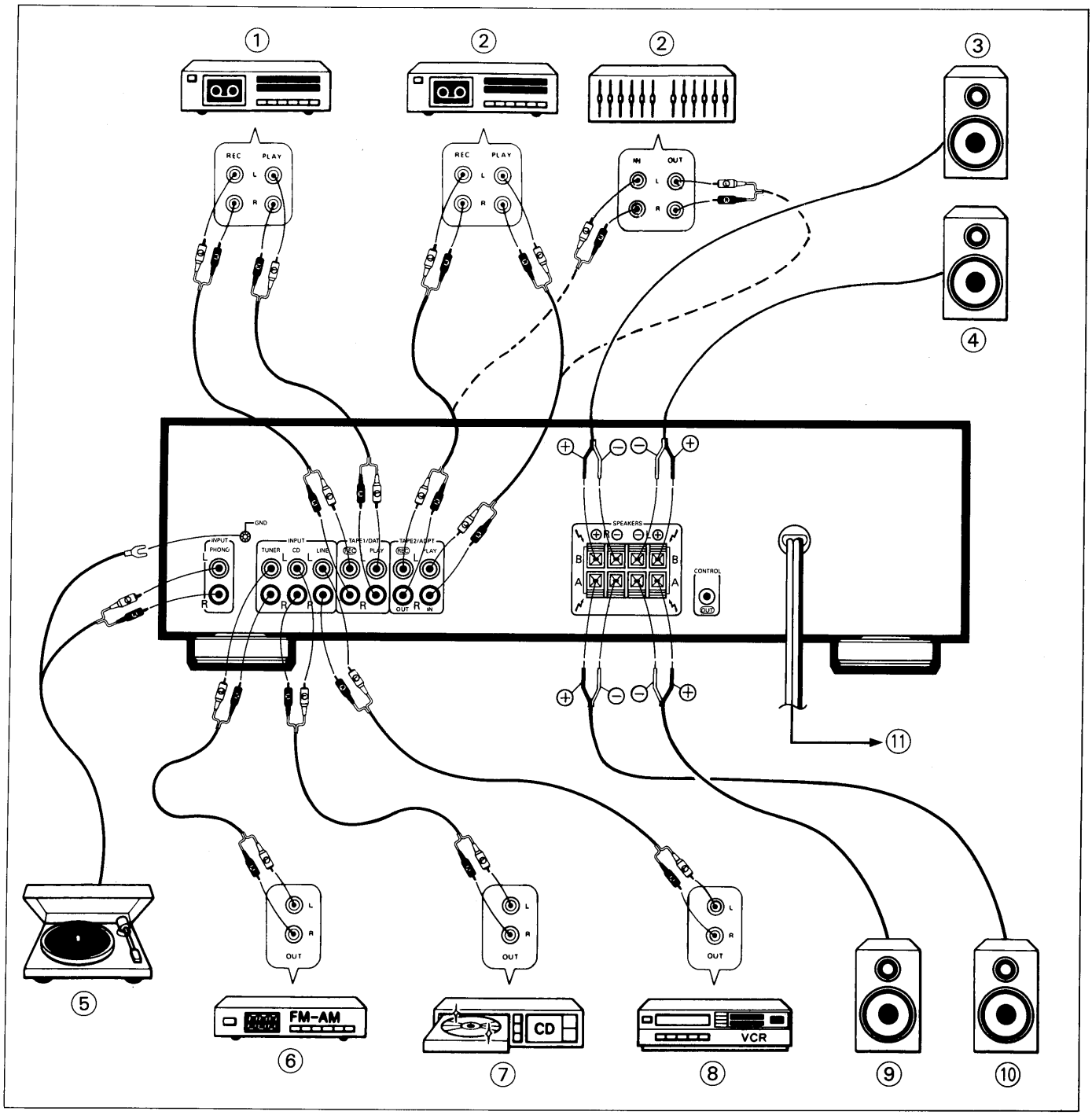
⑭ **CONTROL OUT jack**

This jack is for output of control signals when operating other components bearing the SR mark with the attached remote control unit.

⑮ **Power cord**

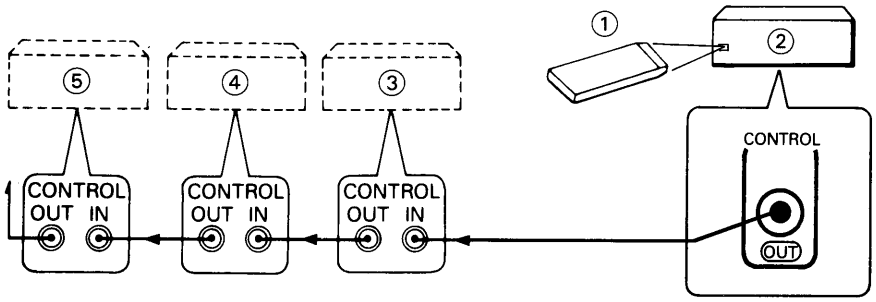
Connect this cord to an AC wall socket, or the AC outlet of an audio timer.

CONNECTIONS



① Cassette deck/DAT
② Cassette, deck/Adaptor
③ Speaker system B (R)
④ Speaker system B (L)
⑤ Turntable
⑥ Tuner
⑦ CD player
⑧ VCR
⑨ Speaker system A (L)
⑩ Speaker system A (R)
⑪ To an AC wall socket.

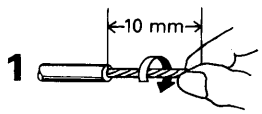
A



Make all connections after unplugging AC cords.

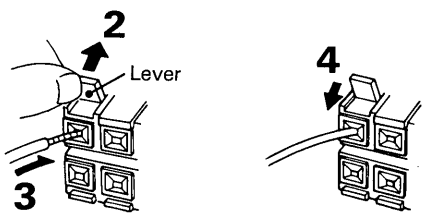
CONNECTING THE SPEAKER CORDS

1. **Strip off the vinyl covering and twist the tip of the wire core.**



Twist the wire core.

2. **Raise the lever in the direction of the arrow and insert the exposed conductor into the hole.**
3. **Now return the lever to its original position to secure the cord.**



NOTE:

Do not allow any of the cord conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.

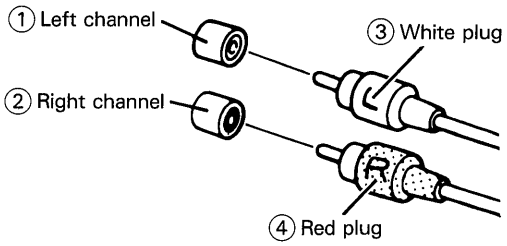
Speaker Impedance

When speaker systems are connected to only SPEAKERS A or SPEAKERS B terminals, such speakers should have rated impedance in the range of 4—16 Ω.

When speakers are connected to both the A and B terminals, they should have a rated impedance in the range of 8—16 Ω.

CONNECTING THE INPUT/OUTPUT CORDS

Connect the white plug ③ to the L (left) channel ①, and the red plug ④ to the R (right) channel ②. Be sure to insert the plugs securely.



The INPUT/OUTPUT jacks of this unit are tinplated for high audio quality.

REMOTE CONTROL CORD CONNECTIONS A

By interconnecting the CONTROL jacks of Pioneer units with the SR mark, the entire system can be operated with this remote control unit, although some of the units (AM/FM tuner, compact disc player, cassette deck, etc.) may not be equipped with remote sensors. The entire system can be operated by a remote control unit connecting PIONEER stereo components to each other using the control input (CONTROL IN) jack on each component. Use the remote control cord supplied with the respective unit for the connection. An example is shown in the fig. A. As long as you connect "OUT" to "IN", the connecting sequence is arbitrary. In the case of a unit which has only an "IN" connector, however, connect it last.

① Remote control unit
② A-351R
③ Cassette deck
④ Compact disc player
⑤ FM/AM tuner

OPERATIONS

BEFORE BEGINNING OPERATIONS

1. **Set the POWER STANDBY/ON switch to ON.**
2. **Press the SPEAKERS selector button corresponding to the speaker system to be used.**
3. **Set the DIRECT button to off.**

PLAYBACK PROCEDURES

1. **Set the INPUT SELECTOR buttons to the desired playback source.**
   - For playback with the equipment connected to LINE terminals: Set to [LINE].
   - For reception of an AM/FM broadcast: Set to [TUNER].
   - For playback of a record: Set to [PHONO].
   - For playback of a compact disc: Set to [CD].
   - For playback of a tape: Set to [TAPE 1/DAT].

   NOTE:
   Always be sure to turn off TAPE 2/ADPT when not using TAPE 2/ADPT.

2. **Operate the equipment to begin playback.**
3. **Adjust playback volume with VOLUME CONTROL on this unit.**
4. **Adjust the tone to your preference using BASS and TREBLE controls, and BALANCE control.**

PLAYBACK USING A GRAPHIC EQUALIZER

The sound of all sources can be finely adjusted with a graphic equalizer connected to TAPE 2/ADPT terminals.
After pressing the TAPE 2/ADPT button so that its indicator lights, select the source that you wish to play.
However, the graphic equalizer is bypassed when DIRECT button is on.

NOTE:
Be sure to perform this operation with the adaptor component power switch in the on position. Even when not using the adaptor component, its power switch must be left on. If the adaptor component is switched off, no sound will be produced, or the playback sound will be distorted.

RECORDING TAPES

1. **Select the recording equipment with INPUT SELECTOR buttons.**
2. **Begin recording by operating the recording equipment.**
   Refer to the operating instructions for your cassette deck for proper operating procedures.

USING AN AUDIO TIMER TO PERFORM TIMER RECORDING

Connect this unit's power cord into the AC power outlet of an audio timer, and set the POWER STANDBY/ON switch to the ON condition (STANDBY indicator goes off) when making timer settings.
If the unit is left in the standby mode (STANDBY indicator lights), timer operation will not be possible.

COPYING TAPES

When two decks are used (or when using double cassette deck), you can record the sounds from one deck onto the other.

Application examples:

- To make a tape copy with contents identical to the original tape.
- To edit a recording of an FM broadcast in order to cut out unwanted commercials, recording only desired material onto another tape.

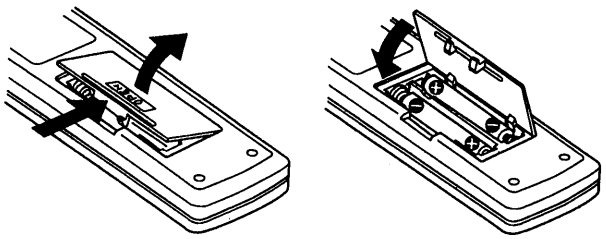
When using two cassette decks

1. **Load tapes for playback (pre-recorded tape) and recording (blank tape) into the respective cassette decks.**
2. **Select the copying direction with INPUT SELECTOR buttons.**
   - When copying from the cassette deck of TAPE 1/DAT terminals to the cassette deck of TAPE 2/ADPT terminals: Press the INPUT SELECTOR button [TAPE 1/DAT].
   - When copying from the cassette deck of TAPE 2/ADPT terminals to the cassette deck of TAPE 1/DAT terminals: Press the INPUT SELECTOR button [TAPE 2/ADPT]. Set INPUT SELECTOR to anything except TAPE 1/DAT.
3. **Operate the cassette decks to begin copying.**
   Set the cassette deck with the blank tape to the recording mode, and set the cassette deck with the original (playback) tape to the playback mode.

REMOTE CONTROL

LOADING BATTERIES

Open the battery compartment cover on the back of the remote control unit.
Insert size "AAA" [IEC R03 (UM-4)] dry cell batteries into the battery compartment in accordance with the indications (⊕, ⊖) inside the compartment.
Close the cover of the battery case.



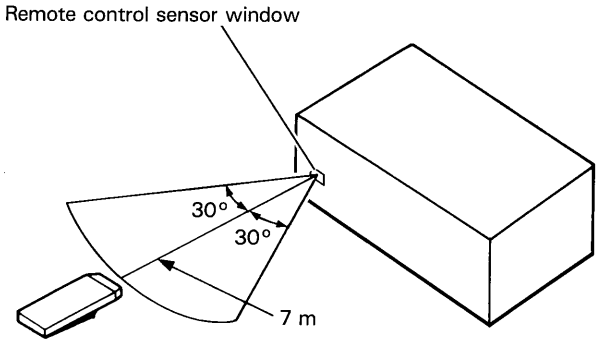
Incorrect use of batteries may lead to leakage or rupture. Always be sure to follow these guidelines:

1. Always insert batteries into the battery compartment correctly matching the positive ⊕ and negative ⊖ polarities, as indicated inside the compartment.
2. Never mix new and used batteries.
3. Batteries of the same size may have different voltages, depending on their type. Do not mix different types of batteries.

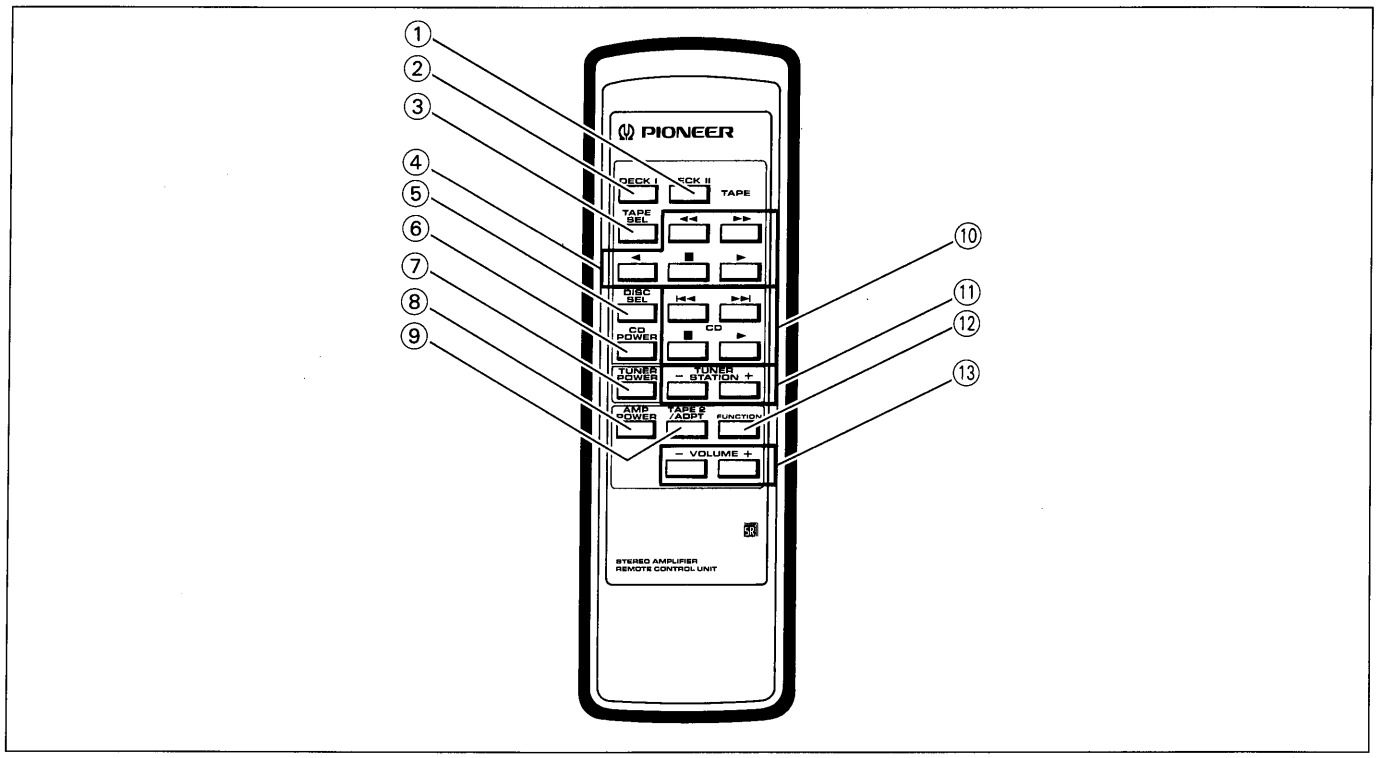
RANGE OF REMOTE CONTROL

When the remote control unit is pointed at the remote sensor window on the stereo amplifier and any of its buttons is pressed, the unit and other components can be operated by remote control.
Distance: Within a range of approx. 7 meters from the unit's remote control sensor window.
Angle: Within approx. 30 degrees from the center of the unit's remote control sensor window.
Remote control will not be possible if there is an obstacle between the remote control unit itself and the unit's remote control sensor window.

- The accessory remote control unit can be used to control some functions of other Pioneer cassette decks, CD players and tuners (only those Pioneer components bearing the SR mark).



REMOTE CONTROL



① DECK II button

To operate Deck II, press this button before pressing the operating buttons.

② DECK I button

To operate Deck I, press this button before pressing the operating buttons.

③ TAPE SEL button

Selects the cassette No. (1 to 6) for multi-cassette changer.

④ TAPE operation buttons

◄◄, ►►: Tape fast forward
◄, ► : Playback in the direction of the arrows
■ : Stop

⑤ DISC SEL button

Press this to select discs on a multi-play or twin tray compact disc player.

⑥ CD POWER button

Switches CD player power on and off.

⑦ TUNER POWER button

Switches TUNER power on and off.

⑧ AMP POWER button

Switches the amplifier power STANDBY/ON.

⑨ TAPE 2/ADPT on and off button

Switches TAPE 2/ADPT on and off.

⑩ CD player operation buttons

|◄◄ : Returns you to the start of the track playing. (Track search)
►►| : Takes you to the start of the next track. (Track search)
■ : Stop
► : Play

⑪ STATION –, + buttons

Calls stations one at a time.

⑫ FUNCTION button

Each time you press the button, the setting changes as follows.

CD → PHONO → TUNER → TAPE 1/DAT → LINE →

⑬ VOLUME +, – buttons

+ ..... Increases the volume.
– ..... Decreases the volume.

NOTE:

When the accessory remote control unit is used to operate other Pioneer components with the SR mark, it cannot be used to operate functions which do not correspond to the functions listed on the remote control unit.

TROUBLESHOOTING

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used.
If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest PIONEER authorized service center or your dealer to carry out repair work.

Symptom	Cause	Remedy
No power supplied to unit.	• Power plug is disconnected from outlet. • The component power plug has been plugged into another component power outlet (e.g. timer, etc.) but power to that unit is disconnected. • POWER STANDBY/ON switch is set to STANDBY.	• Insert plug securely into outlet. • Turn on power to the other component. • Press the POWER STANDBY/ON switch to ON.
No sound.	• Connecting cords are disconnected from terminals, or connected incorrectly. • Terminals, or connecting cords pin plugs are dirty. • INPUT SELECTOR button is not set to the desired input source. • Operation of other components is incorrect. • Both SPEAKERS selector buttons are set to OFF (▙).	• Connect securely. • Clean terminals and plugs. • Set the INPUT SELECTOR button correctly (PHONO, TUNER, CD, LINE, TAPE 1/DAT, TAPE 2/ADPT). • Consult the operating instructions for the other components. • Set one button or both buttons to ON (▂).
No sound from one speaker.	• Connecting cords or speaker cords are disconnected on that side.	• Connect securely.
Cannot record tapes.	• Connections are incorrect. • Operation of cassette deck is incorrect.	• Reconnect properly. • Consult the operating instructions for the cassette deck.
Cannot perform tape copying.	• Operation of cassette deck is incorrect.	• Consult the operating instructions for the cassette deck.
The remote control unit does not work. (Other components cannot be operated.)	• There are no batteries in the remote control unit. • The remote control sensor is not receiving any signals. • The battery compartment cover is not perfectly closed. • The remote control cord is not connected. • A fluorescent light is shining on the remote sensor window.	• Load the remote control unit with batteries (see page 9). • Operate the remote control unit within a range of 7 meters and an angle of 30 degrees (refer to page 9). • Check that the battery compartment cover is closed correctly. • Connect correctly (see page 7). • Move so fluorescent light does not shine directly on amplifier front panel remote sensor window.

• Malfunctions may occur as the result of external influences, such as lightning or static electricity. In this case, set the POWER STANDBY/ON switch to OFF and then ON again to restore normal operation.

SPECIFICATIONS

Amplifier Section

Continuous power output (both channels driven at 20 Hz to 20 kHz)**
T.H.D. 0.07 %, 8 Ω ..... 30 W + 30 W*
DIN Continuous power output (both channels driven at 1 kHz)
T.H.D. 1 %, 4 Ω ..... 45 W + 45 W
T.H.D. 1 %, 8 Ω ..... 35 W + 35 W
Dynamic power output (on EIA dynamic test signal)
4 Ω ..... 60 W
Total harmonic distortion**
20 Hz to 20 kHz, 30 W, 8 Ω ..... 0.07 %*
Input sensitivity/impedance
PHONO (MM) ..... 2.5 mV/50 kΩ
CD, TUNER, LINE, TAPE 1/DAT, TAPE 2/ADPT.... 150 mV/50 kΩ
PHONO overload level
1 kHz, T.H.D. 0.1 % (MM)..... 150 mV
Output level/impedance
TAPE 1/DAT, TAPE 2/ADPT output ..... 150 mV/1 kΩ
Frequency response
PHONO (MM) ..... 20 Hz to 20 kHz ± 0.5 dB
CD, TUNER, LINE, TAPE 1/DAT, TAPE 2/ADPT
..... 5 Hz to 70 kHz $^{+0.5}_{-3.0}$ dB*
Tone control (volume control set at −30 dB position)
BASS ..... ±8 dB (100 Hz)
TREBLE..... ±8 dB (10 kHz)
Signal-to-Noise ratio (IHF short circuit, A network)
PHONO (MM, 5 mV input) ..... 84 dB*
CD, TUNER, LINE, TAPE 1/DAT, TAPE 2/ADPT..... 103 dB*
Signal-to-Noise ratio (DIN, continuous power/50 mW)
PHONO (MM) ..... 69 dB/65 dB*
CD, TUNER, LINE, TAPE 1/DAT, TAPE 2/ADPT..... 89 dB/69 dB*

Power Supply/Miscellaneous

Power requirements ..... a.c. 240 Volts, 50/60 Hz
Power consumption..... 325 W
Dimensions ..... 420 (W) x 336 (D) x 125 (H) mm
Weight (without package) ..... 5.6 kg

Accessories

Remote control unit 1
Batteries (IEC R03, AAA) 2
Operating instructions 1

NOTE:
Specifications and design subject to possible modification without notice, due to improvements.

* Measured with DIRECT button set to on.
** Measured by Audio Spectrum Analyzer.

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